



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,674	06/11/2001	Dean C. Miller	7784-000256	2024

7590 06/11/2003
Harness, Dickey & Pierce, P.L.C.
P. O. Box 828
Bloomfield Hills, MI 48303

EXAMINER

LE, DANH C

ART UNIT PAPER NUMBER

2683

DATE MAILED: 06/11/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary

Application No.

09/878,674

Applicant(s)

MILLER ET AL.

Examiner

DANH C LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-11 and 15-20, 22, 23, 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ronald (US 5,880,867).

As to claim 1, Ronald teaches a wireless local area network adapted for use by users traveling on a mobile platform (figure 11), the network comprising:

a network server (1153) located on the mobile platform; and

a plurality of network access points (1161, 1165) connected to the server, each access point accessible wirelessly by at least one user portable electronic device over one of a plurality of non-overlapping network frequency channels (col.14, line 28-col.16, line 59).

As to claim 2, Ronald teaches the wireless local area network of claim 1 wherein the network access points are spaced apart within an interior area of the platform (col.14, line 28-col.16, line 59).

As to claim 3, Ronald teaches the wireless local area network of claim 1 wherein at least one of the access points is configured so that a line replaceable unit of an aircraft system and an antenna of the access point are separated by a distance at which

Art Unit: 2683

a field strength of the antenna is less than interference thresholds of the line replaceable unit (col.14, line 28-col.16, line 59).

As to claim 4, Ronald teaches the wireless local area network of claim 1 wherein arch of the network access points comprises an antenna mounted in an overhead area of the mobile platform (col.14, line 28-col.16, line 59).

As to claim 5, Ronald teaches the wireless local area network of claim 1 wherein each of the network access points is configured to provide a wireless link only to portable electronics devices predetermined to meet predetermined standards for at least one of interference, health and safety (col.1, lines 47-67).

As to claim 6, Ronald teaches the wireless local area network of claim 5 wherein each of the network access points is further configured to ignore any portable electronic device not pre-determined to meet the predetermined standards (col.16, line 60-col.17, line 32).

As to claim 7, Ronald teaches the wireless local area network of claim 1 wherein each of the network access points is configured to transmit signals to and receive signals from a portable electronic device within a cell area, and is further configured to transmit signals to and receive signals from a portable electronic device that is roaming into the cell area from a cell area, associated with another of the access points (col.16, line 60-col.17, line 32).

As to claim 8, Ronald teaches the wireless local area network of claim 1 wherein each of the network access points is configured to transmit and receive signals using a spread-spectrum modulation method (col.18, lines 6-16).

As to claim 9, Ronald teaches the wireless local area network of claim 8 wherein each of the network access points is configured to transmit and receive signals using direct sequence spread spectrum transmission (col.18, lines 6-16).

As to claim 10, Ronald teaches wireless local area network of claim 1 wherein each of the access points comprises an antenna configured to communicate over a channel not being used by an adjacent access point antenna (col.3, lines 42-63).

As to claim 11, Ronald teaches the wireless local area network of claim 9 wherein at least one of the channels is assigned to more than one of the access points (col.3, lines 42-63).

As to claim 15, Ronald teaches the wireless local area network of claim 1 further comprising at least one antenna system configured to transmit to and receive data from a ground-based system (col.18, lines 16-25).

As to claim 16, the claim is a method claim of claim 1; therefore, the claim is interpreted and rejected as set forth in the claim 1.

As to claim 17, the claim is a method claim of claim 5; therefore, the claim is interpreted and rejected as set forth in the claim 5.

As to claim 18, the claim is a method claim of claim 6; therefore, the claim is interpreted and rejected as set forth in the claim 6.

As to claim 19, the claim is a method claim of claim 7; therefore, the claim is interpreted and rejected as set forth in the claim 7.

As to claim 20, the claim is a method claim of claim 10; therefore, the claim is interpreted and rejected as set forth in the claim 10.

As to claim 22, Ronald teaches the method of claim 16 wherein the step of distributing use of a plurality of channels comprises assigning a channel to more than one access point (figure 11, 1167, 1187).

As to claim 23, Ronald teaches a wireless local area network configured to operate at a given spectrum band and adapted for use by users traveling on an aircraft (figure 11), the network comprising:

a network server located on the aircraft (1153); and
a plurality of network access points (1165, 1161) connected to the server and configured to transmit wirelessly to at least one user portable electronic device using direct sequence spread spectrum transmission.

As to claim 25, Ronald teaches the wireless local area network of claim 23 wherein more than one of the access points is configured to transmit over the same channel of the network spectrum (col.3, lines 42-67).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 12 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronald in view of Rautiola (US 5,924,030).

As to claims 12 and 24, Ronald teaches the wireless local area network of claim

1. Ronald fails to teach wherein each of the access points transmits at a radiated power between 1 and 5 milliwatts. Rautiola teaches the access points transmits at a radiated power less than 1 millimeter (col.7, lines 17-39). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Rautiola into the system of Ronald in order to transmit a very low power.

3. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronald in view of West (US 6,544,174).

As to claim 13 and 14, Ronald teaches the wireless local area network of claim 1. Ronald fails to teach wherein each of the access points communicates with the portable electronic devices at frequencies at and above about 2.40 GHz and between 2.40 and 2.483 GHz. West teaches each of the access points communicates with the portable electronic devices at frequencies at and above about 2.40 GHz (col.8, lines 17-34). Both Ronald and West fails to teach the frequencies is between 2.40 GHz-2.483 GHz, however, the engineer can design each of the access points communicates with the portable electronic devices at the frequencies between 2.40 GHz-2.483 GHz. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of West and the frequencies between 2.40 GHz-2.483 GHz and into the system of Ronald in order to support a variety of different frequencies.

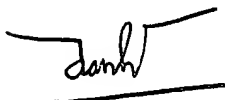
4. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ronald.

As to claim 21, Ronald teaches the method of claim 20, Ronald fails to teach the non-overlapping channels comprise three channels. However, the channels comprises three channels is obvious because the engineering may design three channels as required. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of three channels into the system of Ronald in order to enhance the system performance of the infrared backbone communication network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C LE whose telephone number is 703-306-0542. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Danh C. Le
June 5, 2003



WILLIAM TROST
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600